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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,957	11/18/2003	William H. Davis	032930-005	4586

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EXAMINER

ROBINSON, KEITH O NEAL

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,957

Applicant(s)

DAVIS, WILLIAM H.

Examiner

Keith O. Robinson, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7, drawn to a process for selecting a wheat plant which exhibits genetically-controlled herbicide resistance that is not attributable to genetic engineering, classified in class 800, subclass 276, for example.
- II. Claims 8-15, drawn to a *Triticum aestivium* plant which exhibits genetically-controlled glyphosate herbicide resistance that is attributable to the ng^{w1} ng^{w1} gene pair obtainable from the 'WA7824' wheat variety and the ng^{w2} ng^{w2} gene pair obtainable from the 'Zeke' wheat variety, classified in class 800, subclass 320.3, for example. If this Group is elected then the below summarized specie selection is also required.
- III. Claims 16-31, drawn to an isolated nucleic acid encoding for a protein which when expressed in a *Triticum aestivium* plant causes glyphosate herbicide resistance that is naturally-occurring in wheat, classified in class 435, subclass 6, for example. If this Group is elected then the below summarized specie selection is also required.
- IV. Claim 32, drawn to a method to control weeds in a field of wheat plants wherein a glyphosate herbicide is applied to the field at a rate and amount

suitable for the effective weed control while maintaining the viability of the wheat plants, classified in class 504, subclass 116.1, for example.

This application contains claims directed to the following patentably distinct species of the claimed invention: wheat variety 'W2-1' and wheat variety 'W2-4'.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 8-11 are generic to the above species in Group II and claims 16-17 and 20-31 are generic to the above species in Group III.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product (Group II) can be made by another and materially different process. For example, the plant can be produced by spraying plants with glyphosate and selecting those that are resistant. Furthermore, searching the invention of Group I together with the invention of Group II would impose a serious search burden. In the instant case, prior art searches of a process of selecting a wheat plant which exhibits genetically-controlled herbicide resistance that is not attributable to genetic engineering are not coextensive with prior art searches of a *Triticum aestivum* plant which exhibits genetically-controlled glyphosate herbicide resistance that is attributable to the $ng^{w1} ng^{w1}$ gene pair obtainable from the 'WA7824' wheat variety and the $ng^{w2} ng^{w2}$ gene pair obtainable from the 'Zeke' wheat variety. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then

require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions I and II together.

Groups I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). These inventions are different because Group I, a process of selecting a wheat plant which exhibits genetically-controlled herbicide resistance that is not attributable to genetic engineering, does not require the isolated nucleic acid of Group III as starting material. Furthermore, searching the invention of Group I together with the invention of Group III would impose a serious search burden. In the instant case, prior art searches of a process of selecting a wheat plant which exhibits genetically-controlled herbicide resistance that is not attributable to genetic engineering are not coextensive with prior art searches of an isolated nucleic acid. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions I and III together.

Groups I and IV are patentably distinct methods. These inventions are different because each invention has a different mode of operation and different functions. Group I requires steps, such as soaking of seeds, not required for Group IV, and each Group

would have different functions from the other because each Group is drawn to completely independent methods, one not required of the other. Furthermore, searching the invention of Group I together with the invention of Group IV would impose a serious search burden. In the instant case, prior art searches of a process of selecting a wheat plant which exhibits genetically-controlled herbicide resistance that is not attributable to genetic engineering are not coextensive with prior art searches of a method to control weeds in a field of wheat plants wherein a glyphosate herbicide is applied to the field at a rate and amount suitable for the effective weed control while maintaining the viability of the wheat plants. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions I and IV together.

Groups II and III are patentably distinct. Group II is drawn to non-genetically engineered plants, whereas Group III is drawn to isolated nucleic acid and transgenic plants. Furthermore, searching the invention of Group II together with the invention of Group III would impose a serious search burden. In the instant case, prior art searches of a *Triticum aestivium* plant which exhibits genetically-controlled glyphosate herbicide resistance that is attributable to the $ng^{w1} ng^{w1}$ gene pair obtainable from the 'WA7824' wheat variety and the $ng^{w2} ng^{w2}$ gene pair obtainable from the 'Zeke' wheat variety are not coextensive with prior art searches of an isolated nucleic acid encoding for a protein

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which when expressed in a *Triticum aestivum* plant causes glyphosate herbicide resistance that is naturally-occurring in wheat. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions II and III together.

Groups II and IV are related as product and method of use. The plant of Group II can be used in a method of breeding. Furthermore, searching the invention of Group II together with the invention of Group IV would impose a serious search burden. In the instant case, prior art searches of a *Triticum aestivum* plant which exhibits genetically-controlled glyphosate herbicide resistance that is attributable to the $ng^{w1} ng^{w1}$ gene pair obtainable from the 'WA7824' wheat variety and the $ng^{w2} ng^{w2}$ gene pair obtainable from the 'Zeke' wheat variety are not coextensive with prior art searches of a method to control weeds in a field of wheat plants wherein a glyphosate herbicide is applied to the field at a rate and amount suitable for the effective weed control while maintaining the viability of the wheat plants. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions II and IV together.

Groups III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). These inventions are different because each invention has a different mode of operation and different functions. The products of Group III are not required by Group IV. Furthermore, searching the invention of Group III together with the invention of Group IV would impose a serious search burden. In the instant case, prior art searches of an isolated nucleic acid encoding for a protein which when expressed in a *Triticum aestivum* plant causes glyphosate herbicide resistance that is naturally-occurring in wheat are not coextensive with prior art searches of a method to control weeds in a field of wheat plants wherein a glyphosate herbicide is applied to the field at a rate and amount suitable for the effective weed control while maintaining the viability of the wheat plants. Search of each of these inventions would require different key word searches of each group using divergent patent and non-patent literature databases. The different searches would then require subsequent in-depth analysis of the unrelated prior art literature, placing a serious burden on the Office in terms of both search and examination. As such, it would be burdensome to perform examination of inventions III and IV together.

Because the inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject

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matter, classification, and fields of search, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under CFR 1.17(i).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith O. Robinson, Ph.D. whose telephone number is 571-272-2918. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, Ph.D. can be reached on 571-272-0804. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith O. Robinson, Ph.D.

March 10, 2005

A handwritten signature in black ink, appearing to read 'Ashwin D. Mehta', is positioned above the printed name and title.

ASHWIN D. MEHTA, PH.D.
PRIMARY EXAMINER